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Cooking System

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Cooking System

The invention relates to an induction heating system for a cooking device particularly an oven.

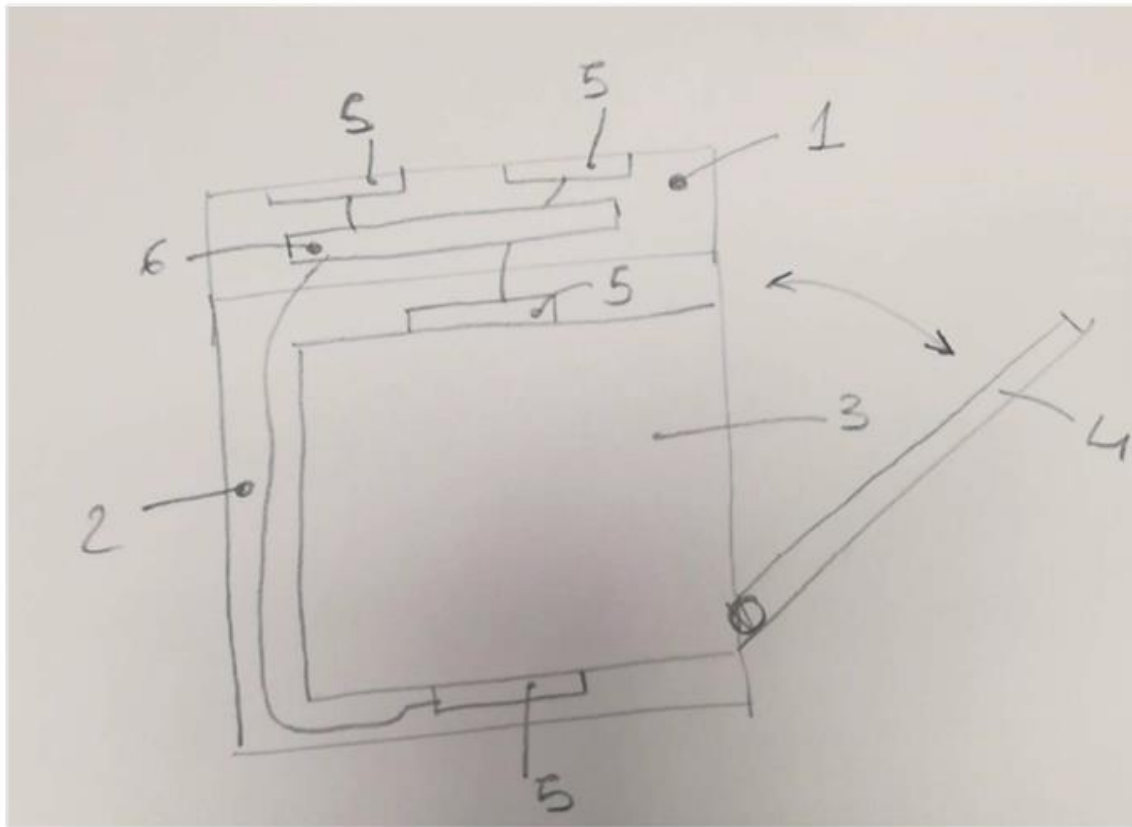
In the prior art, oven can usually be heat by resistive heating elements or with inductions coils.

As described in JP2011258338, a heating chamber is heated by at least two induction oil heating which is in contact with the heating chamber. One of the induction heating coil is located on the top, externally of the heating chamber and the second induction heating coil is placed at the bottom, externally of the heating chamber. Those induction heating coil share the same power supply and control circuit. This allowed a reduction of cost of the cooking appliance.

In another prior art, JP2016115421, the heating coil for the structure in which the heating coil for the top plate which induction-heats the container on a top plate, and the heating coil for the cooking cabinet which induction-heats the container in a cooking cabinet are connected to a common electric current supply source. In the cooker, it is possible to suppress the lengthening of the heating cooking in the cooking cabinet and improve the usability of the cooking cabinet.

The proposed solution herein is to make use of the electronics of an induction hob by driving also an induction coil heating the cavity wall oven, made of ferromagnetic material. The induction coil is preferably located on top and bottom of the cavity. The use of induction permits to be energy efficient, as the desired heating part is in direct contact with the induction coil heating element. Therefore the temperature of the oven cavity is kept as constant as possible.

An odd number of induction coil is preferably installed in the cooking device that is shared with an induction hob and an oven in the same housing. The generator can drive either or at the same time the hob or oven, with the used of switching element.



1. Hob part of the cooker
2. Oven part of the cooker
3. Oven cavity
4. Oven door
5. Induction heating coil
6. Induction control power electronics